

Dart Aerospace Ltd. 1270 Aberdeen St Hawkesbury, ON K6A 1K7 Canada

PURCHASE ORDER PO039475

Tel (613) 632-5200

Supplier:

TEM001-VC

Tempo Aerospace Inc.

205 Fenmar Dr. Toronto

ON

M9L 2X4 Canada Phone: 416 746 2233

Fax: 416 746 2235

PO No:

PO039475

PO Date:

4/2/18 4/11/18

Due Date:

Purchase Order

Revision:

Revision Date:

APR 0 2 2018

Ship-To Contact:

Lavoie, ChantalPhone:

clavoie@dartaero.com

Ship To:

1270 Aberdeen Street

Hawkesbury

ON

K6A 1K7 Canada Phone: 613-632-5200 Via:

Ground

Pymt Terms:

Net 30

Freight Terms:

Special Comments:

Items

Line Item	 Supplier Part No	Item No	Description	Status	Due Date		Received Quantity		Unit Price (CAD)	Extended Price
1	4500-P-	4500-	Yellow Primer	Firmed	4/11/18	6 Ea	0 Ea	6 E a	\$133.91/Ea	\$803.46
	,	P- 23Y					(9×	H	7 (glor)	5

\$803.46

Order Notes

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Plex 4/2/18 10:37 AM dart.lavoie.chantal



Tempo Aerospace Inc.

Certificate of Conformance

205 Fenmar Drive Toronto ON M9L 2X4 Canada Phone: 416.746.2233 Fax: 416.746.2235 orderdesk@tempo-aerospace.com



Print Date : Apr-06-2018 3:19 PM	Printed By : Susanna Fu Print No. :					
Your P.O.: PO039475	No. : 221536	Pg:1/1				
Sold To : Account No. [DARTAS]	Shipped To:					
Dart Aerospace Ltd. Attn: Chantal Lavoie, Buyer 1270 Aberdeen Street Hawkesbury, ON K6A 1K7 Canada Tel.: (613) 632-9577 Fax: (613) 632-1053	Dart Aerospace Ltd. 1270 Aberdeen Street Hawkesbury, ON K6A 1K7 Canada Tel.: 613.632.3336 Fax: 613.632.4443					

Line	P/N & Description	Qty Order	dered Shipped		Unit Sell Price	Amount
1	4500-P-23Y	6	KT	6		
	Yellow Epoxy Primer			(Qty. Back 0)		
	Priority [P3]: P3 - Regular ASAP					,
	Spec1: BAMS 565-001 RvD GrA Cat1 Ty1					
	MFG: (TEM2233) TEMPO AEROSPACÉ INC Same bases different catalyst					
2	4500-PB-23Y-BG	6	GC	6		
_	BASE: Yellow Epoxy Primer	v	•	(Qty. Back 0)		
	Pick Ticket / Packing Slip No. : 42179			(4.9. 240. 0)		
	Priority [P3]: P3 - Regular ASAP					3
	Batch #: 21483					
	Cat Batch#: 20969/21628 MFG: (TEM2233) TEMPO AEROSPACE INC					
	Mfg Date: Jan-11-2018					
	Shelf Life Expiration: Jan-11-2020					
	LINE WEIGHT: [KG] 33.420					
,	LINE VOLUME: [ML] 22,716.000	^	00			
3	4500-C-23 HARDENER: Epoxy	6	GC	(Oty Pook 0)		
	Pick Ticket / Packing Slip No. : 42179			(Qty. Back 0)		
	Priority [P3]: P3 - Regular ASAP					
	Batch #: 21628					
İ	MFG: (TEM2233) TEMPO AEROSPACE INC					
	Mfg Date: Jan-17-2018					
	Shelf Life Expiration: Feb-16-2020 LINE WEIGHT: [KG] 19.800					
	LINE VOLUME: [ML] 22,716.000					

STATEMENT OF CONFORMITY:

I certify that the whole of the material listed above has beeen inspected and tested and conforms to the drawings and/or specifications quoted on, or referenced by your Purchase Order.

Abbreviations:

FS = Federal Standard 595C





Zuneera Zaheer, Chemist, QA Manager



Test Report

06/04/2018

Sales Order: 22318

Packing Slip: 42179

Customer: Account No.: DARTAS

Dart Aerospace Ltd.

Customer PO:

PO039475

KT.

Kit Code: 4500-P-23Y

QSHIP

Yellow Epoxy Primer

BAMS 565-001 RVD GrA Cat1 Tv1

BOM Part: 4500-PB-23Y-BG

BASE: Yellow Epoxy Primer

Batch:21483

Batch No.: 21483

QSHIP

Result: Passed

GC

Spec Ref. / Tempo

Method

7.2.4

7.2.6

Condition in container When tested according to FTMS 141 Method 3011, the base component and the hardener shall be free of skins, gelling and foreign contamination, and shall be capable of being mixed into a homogeneous material. The component containing the pigments shall show no caking or separation of the pigments.

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Pass/Fail

DOM: January 2018

Method M-L-AA-12

Method M-L-AA-3-b

Non volatile content

When tested in accordance with ASTM D2369, the non-volatile content for the base component shall not vary more than ± 2 percent from the value established by the supplier on the qualification report.

When tested according per ASTM D1353, the thinner, solvent, or reducer shall not have more than 25 mg of non-volatile content per 100 ml

Numeric Value

Result: 72.65 Passed

Range: 70.99 to 73.89

7.2.7

Method M-I -AA-18

Weight per gallon

When tested according to ASTM D1475, the weight per gallon of the base component and the hardener shall not vary more than ± 0.20 lbs/gal from the value established by the supplier in the qualification report.

Numeric Value

Result: 12.20 Passed

Range: 12.08 to 12.48

7.3.2

Method M-L-AA-17

Viscosity When mixed in the ratio specified by the manufacturer, and after the induction time specified by the manufacturer,

the mixed material shall have the following viscosity: (a) Grade A 14 to 23 seconds when measured with a Gardco EZ Zahn cup No. 2 Numeric Value

Result: Passed

Range: 14.00 to 23.00

7.3.1

Method M-L-AA-14

Pot Life

When tested in accordance with 7.4.3.1, a one-quart sample of mixed material shall show no signs of lumping seeding or separation, and shall be capable of meeting the requirements of each test specified in Section 7.4.3.1. Numeric Value

Result: 22.00 Passed

Range: 14.00 to 28.00

7.3.3

Method M-L-AA-15

Spraying properties

When tested in accordance with FTMS 141 Method 4331, and after the induction time specified by the manufacturer, the mixed material shall exhibit satisfactory spraying characteristics and leveling properties. The primer shall show no sacs, runs or streaks, and shall cure to a hard, smooth finish, free from seeds, blisters, blushing or other surface irregularities

Pass/Fail Value Result: Passed

7.3.4

Method M-L-AA-2

Colour

When viewed in a MacBeth Daylight Booth, Illuminate C (or equivalent), the colour of the cured primer at a dry film thickness of 1.0 to 1.5 mils shall match BAC 452 green or BAC 377 yellow as specified in the Purchase Order. This colour requirement does not apply for water-based primer.

Alphanumeric Value

Result: PASS Passed

7.3.6

Method M-L-AA-8

Gloss

The material shall be available as lusterless. When applied per Section 7.4.2 and tested per ASTM D523 and at a dry film thickness of 1.5 - 2.0 mils the 60 degree specular gloss of the cured primer shall be 6 maximum for Grade A. For Grade B, a maximum gloss level of 20 is acceptable

Numeric Value

Result: 6.00 Passed

Target: BAC 377 yellow

Range: 0.00 to 6.00

Tempo Aerospace Inc.

PT: 42179 Page 1 of 2

Dart Aerospace Ltd. Customer: **Account No.:** DARTAS

Customer PO:

PO039475

Spec Ref. / Tempo Method

Batch No.: 21483

DOM: January 2018

7.3.6 Method M-L-AA-4 **Drying Time**

Pass/Fail Value

When tested in accordance with FTMS 141 method 4061, the material shall have the following curing characteristics at 75 \pm 5°F (24 \pm 3°C) and 50 \pm 5% relative humidity:

Result: Passed

Adhesion wet tape

a) Tack Free: 4 hours maximum b) Dry Through: 8 hours maximum

Alphanumeric

Result: PASS Passed

Method M-L-AA-1

7.3.9

When tested in accordance with 7.4.3.4 there shall be no loss of adhesion (i.e. no removal of the primer, rating 5B per ASTM D3359) and no blistering, wrinkling or other film defects. Value

7.3.12

Fluid resistance

Alphanumeric Value

Result: PASS Passed

Method M-L-AA-7

When tested in accordance with 7.4.3.7 there shall be no blistering, wrinkling or other film defects except slight discoloration. In addition, there shall be no loss of adhesion of the primer (i.e. no removal of the primer, rating 5B per ASTM D3359), and the pencil hardness shall not be less than HB after observing the recovery period, as described

Target: 5B hardness. >=HB

hardness

Target: 5B

7.3.11 Method M-L-AA-10 Impact resistance

When tested in accordance with 7.4.3.6, the primer shall not show any film defects or adhesion failures when

Pass/Fail Value

Result: Passed

50 inch pounds on the forward side and 30 inch pounds on the reverse side.

BOM Part: **4500-C-23**

Batch: 21628

QSHIP

GC

HARDENER: Epoxy

Spec Ref. / Tempo Method

Batch No.: 21628

DOM: January 2018

Method M-L-AA-3-c

Method M-L-AC-03-c

Condition in container The catalyst component shall be clear and clean. Pass/Fail Value Result: Passed

3.1.3

Condition in container

The catalyst component shall be clear and clean.

Pass/Fail Value

Result: Passed

7.2.7 Method M-L-AA-18 Weight per gallon

Non volatile content

Numeric Value

Result: 7.30 Passed Range: 7.08 to 7.48

When tested according to ASTM D1475, the weight per gallon of the base component and the hardener shall not vary more than \pm 0.20 lbs/gal from the value established by the supplier in the qualification report.

Method M-L-AA/AC-12 No more than ± 2 percent from the theoretical value

Thank you for choosing Tempo Aerospace!

Numeric Value

Result: 20.49 Passed Range: 20.00 to 21.50

*** END OF TEST REPORT***



TEMPO AEROSPACE INC.

AIRCRAFT AND AUTOMOTIVE FINISHES INDUSTRIAL PAINTS, LACQUERS, VARNISHES 205 FENMAR DRIVE, TORONTO, ONTARIO CANADA M9L 2X4 TEL.. (416) 746 2233 FAX: (416) 746 2235.

E-MAIL: sales@tempo-aerospace.com

ISO9001 REGISTERED

MATERIAL SAFETY DATA SHEET

- I - PRODUCT INFORMATION -

MANUFACTURER

TEMPO AEROSPACE INC. Telephone: (416) 746 2233

205 FENMAR DRIVE

TORONTO, ONTARIO, CANADA Emergency telephone: (416) 746 2233

M9L 2X4 CANUTEC (24 hours): (613) 996 6666

SUPPLIER Same.

: YELLOW BASE EPOXY PRIMER Description

Product Code : 4500-PB-23Y

Product Class : Primer

: HEALTH: 2 FLAMMABILITY: 3 REACTIVITY: 1 PPE: G HMIS Ratings

WHMIS Classification: B2, D2a, D2b

TDG CLASSIFICATION : PAINT

TDG Class 3 UN1263 Packing Group II

- II - PREPARATION INFORMATION -

Prepared by : ALAN BOLYOS Telephone : (416) 746 2233

Date Prepared : 05/18/16

- III - HAZARDOUS INGREDIENTS -

		CAS Reg.No. % by wt.	ppm-TLV-mg/m3 SOURCE
i	-Epichlorhydrin/Bisphenol	25036-25-3 10-30%	N.AV. N.AV. MFG.
	A Epoxy Resin	1	
ii	-Epoxy phenol novolac	28064-14-4 10-30%	N.AV. N.AV. MFR
iii	-Ethyl Benzene	100-41-4 1.0-5%	100 435 ON833/00
iv	-Methyl Ethyl Ketone	78-93-3 1.0-5%	200 590 CCOHS
V	-PM Ether/Propylene Glyco	107-98-2 1.0-5%	100 360 ON654/86
	1 Methyl Ether		

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-Silicon Dioxide, Amorpho | 68855-54-9 | 1.0-5% | N.AV. | 3 | ACGIH
vi
                                 1
                                                      - 1
       -Silica, cristobalite
                                 |14464-46-1 | 1.0-5% | N.AV. | 0.1 | ACGIH
vii
                                 | 7789-06-2 | 10-30% | N.AV. | .0005 | ON833/00
       -Strontium chromate
viii
       -Talc, non fibrous
                                 |14807-96-6 | 1.0-5% | N.AV. |
                                                                 2
iх
       -Titanium dioxide
                                 |13463-67-7 | 1.0-5% | N.AV. | 10
                                                                       ION833/00
Х
       -Toluene
                                 | 108-88-3 | 5-10% | 50 | 188 | CCOHS
хi
xii
       -Wollastonite
                                 |13983-17-0 | 10-30% | N.AV. | N.AV. | MFR
       -Xylene
                                 | 1330-20-7 | 5-10% | 100 | 435 | ACGIH
xiii
               (N.AV. = not available. N.AP. = not applicable.)
Notes:
       -flammable, irritant
                                                                     (EP110007)
i
       LD50 mg/kg: 5100 , oral , Rat.
       LC50(4 hr): 1500 ppm , Rabbit.
ii
       -Irritant
                                                                     (EP110008)
iii
       -flammable, irritant
                                                                     (ET090001)
       LD50 mg/kg: 3500 , oral , Rat.
       LC50(4 hr): 4000 ppm , Rat.
       -flammable, irritant
iv
                                                                     (ME090006)
       LD50 mg/kg: 2740 , oral , Rat.
       LC50(4 hr): 11700 ppm , Rat.
       -flammable, irritant
                                                                     (PM090002)
       LD50 mg/kg: 5660 , oral , Rat.
       LC50(4 hr): 7000 ppm , Rat.
       -irritant
νi
                                                                     (SI010001)
       LD50 mg/kg: 3160 , oral , Rat.
       -respiratory irritant
                                                                     (SI010005)
vii
viii
       -carcinogenic
                                                                     (ST020001)
       LD50 mg/kg: 600 , oral , Rat.
       -irritant
ix
                                                                     (TA060001)
       -irritant
                                                                     (TI060001)
Х
       LD50 mg/kg: 24000 , oral , Rat.
       -flammable, toxic
хi
                                                                     (TO090001)
       LD50 mg/kg: 2600 , oral , Rat.
       LC50(4 hr): 8800 ppm , Rat.
xii
       -irritant
                                                                     (WO060001)
       -flammable, irritant
                                                                     (XY090001)
xiii
       LD50 mg/kg: 4300 , oral , Rat.
       LC50(4 hr): 5000 ppm , Rat.
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4500-PB-23Y.doc 2 18-May-16

- IV - PHYSICAL DATA -

ODOUR AND APPEARANCE: Viscous liquid with solvent odor.

VOLATILE BY VOLUME : 47.47% SPECIFIC GRAVITY : 1.472

EVAPORATION RATE : FASTER than N'Butyl Acetate.

FLASHPOINT : -9 Degrees Centigrade (Setaflash)

LEL : 1.0 STABILITY : STABLE

HAZ. POLYMERIZATION : WILL NOT occur.

VOC (gm/lt) : 405.8 (water in)

VOC (gm/lt) : 405.8 (water out)

HAPs (% wt) : 9.39

- V - FIRE AND EXPLOSION HAZARD -

EXTINGUISHING METHOD

Extinguish with carbon dioxide, foam, dry chemical. Water may be ineffective at putting out fires.

SPECIAL FIRE-FIGHTING PROCEDURES

Self contained positive pressure breathing apparatus should be worn by fire fighting personnel. Exposure to heat builds pressure in closed containers. To prevent bursting, cool with stream of water.

UNUSUAL FIRE AND EXPLOSION HAZARDS

Flammable; material will ignite readily at ambient temperatures. Avoid use in the vicinity of sparks, static, or any source of ignition. Product is a static accumulator. Use proper grounding procedures when transferring. Vapours are heavier than air and may travel along the ground to ignition sources distant from the point of material handling and flash back. Vapours will collect in low laying areas and confined spaces.

HAZARDOUS COMBUSTION PRODUCTS

Complete and partial combustion of the paint itself or the dried film will produce carbon monoxide, carbon dioxide and various other toxic hydrocarbons.

- VI - REACTIVITY DATA -

CONDITIONS TO AVOID

To maintain stability, avoid ignition sources.

INCOMPATIBILTY - MATERIALS TO AVOID

To maintain product integrity, avoid contact with strong acids, alkalies, reactive metals oxidizing materials.

HAZARDOUS DECOMPOSITION PRODUCTS

See Section 5D for Hazardous Combustion Products.

HAZARDOUS POLYMERIZATION - CONDITIONS TO AVOID None known.

- VII - TOXICOLOGICAL PROPERTIES -

ACUTE EFFECTS OF OVEREXPOSURE

SKIN CONTACT:

Irritating on contact. Contains an ingredient which may be absorbed through the skin. See ingestion for symptoms. Repeated or prolonged exposure may cause dry skin and dermatitis.

EYE CONTACT:

Liquid is irritating when splashed directly into the eyes. Severe exposure to vapours will irritate the eyes.

INHALATION:

Vapours and mist may cause nervous system depression, characterized by nausea, dizziness, loss of co-ordination, etc. Inhalation of product may irritate the respiratory system.

INGESTION:

May cause gastrointestinal irritation. Ingestion, like inhalation, may cause central nervous system depression with similar symptoms. However, small amounts aspirated into the respiratory system during ingestion or subsequent vomitting will cause severe lung irritation, (chemical pneumonitis).

CHRONIC EFFECTS OF OVEREXPOSURE

Reports have associated repeated and prolonged occupational overexposure to solvents with brain and nervous system damage. Prolonged inhalation of crystalline silica dust in high concentrations may lead to silicosis, a chronic lung disease. IARC has evaluated crystalline silica as a level 2A carcinogen, (limited human evidence). Chromium and certain chromium compounds are classified by IARC and NTP as known carcinogens, (Group 2B). ACGIH lists chromates of lead as substances of suspect carcinogenicity to man. Laboratory studies show that only calcium, strontium and zinc chromates produce statistically significant increases in the number of carcinomas. No such increases were seen with lead

chromate. Chronic exposure has resulted in liver and kidney damage in laboratory animals. Xylene has been classified as a possible embryotoxin based on recommendations from the World Health Organization. Chronic inhalation of talc in powdered form may result in talc pneumoconiosis.

IRRITANCY

Product is a moderate eye and skin irritant. Product is a respiratory irritant.

SENSITIZATION

Product is essentially nonsensitizing.

- VIII - FIRST AID MEASURES -

SKIN CONTACT

Wash thoroughly with soap and water. Remove contaminated clothing. Seek medical attention if irritation persists.

EYE CONTACT

Flush with warm water until irritation subsides. If irritation persists, seek medical attention.

INHALATION

Remove to fresh air. Perform artificial respiration if necessary. Get medical help immediately.

INGESTION

Dilute by drinking 1 to 2 fluid ounces of water if conscious. Do not induce vomitting. Call for prompt medical attention.

- IX - PREVENTIVE MEASURES -

SPILL OR LEAK PROCEDURES

Use nonsparking tools and explosion proof equipment. Eliminate ignition sources. Stop spill at source. Pump up excess. Soak up residue with a suitable absorbant and collect absorbate in a container for disposal. For larger spills, dike to prevent spreading, notify the proper authorities. Restrict access to area.

WASTE DISPOSAL METHOD

Incinerate or landfill in accordance with local, provincial and federal legislation. Never dispose of by means of public waters or drainage systems.

PERSONAL PROTECTIVE EQUIPMENT

Nitrile, neoprene or rubber gloves and long sleeves should be worn to prevent skin contact. Chemical goggles should be worn to prevent eye contact. Do not wear contact lenses. A NIOSH approved organic vapour respirator with dust and mist prefilter may be required in the absence of adequate environmental controls, (when TLV exceeded). Safety shower and eye bath should be available. Approved barrier creams may be used as skin protection.

VENTILATION AND ENGINEERING CONTROLS

Use adequate ventilation (general or local) to maintain the ambient concentration below the occupational exposure limit. Local exhaust is recommended.

TRANSPORTATION, STORAGE, AND HANDLING PROCEDURES

Avoid generation of excessive dust and dust inhalation during sanding and spraying operations. Use good housekeeping practices to avoid accidental ingestion. Keep away from food and feed products. Wash thoroughly after handling, and before eating or smoking. Store in a cool, dry, well ventilated area. Do not freeze. Remove from sources of ignition. Contaminated rags may catch fire spontaneously. Store under water in a closed container before cleaning. Do not reuse empty containers. Recondition or dispose of in the proper manner. Use with adequate ventilation. Avoid skin contact. Protect your eyes. Avoid generating vapours or mists.

MATERIAL SAFETY DATA SHEET

- I - PRODUCT INFORMATION -

MANUFACTURER

TEMPO AEROSPACE INC. Telephone: (416) 746 2233

205 FENMAR DRIVE

TORONTO, ONTARIO, CANADA Emergency telephone: (416) 746 2233

M9L 2X4 CANUTEC (24 hours): (613) 996 6666

SUPPLIER

Same.

Description : EPOXY PRIMER CATALYST

Product Code : 4500C23
Product Class : CATALYST

HMIS Ratings : HEALTH: 3 FLAMMABILITY: 3 REACTIVITY: 0 PPE: R

WHMIS Classification: B2, D2a, D2b

TDG CLASSIFICATION : PAINT RELATED MATERIAL

TDG Class 3 UN1263 Packing Group II

- II - PREPARATION INFORMATION -

Prepared by : ALAN BOLYOS
Telephone : (416) 746 2233

Date Prepared : 10/06/17

- III - HAZARDOUS INGREDIENTS -

		CAS Reg.No.	% by wt.	ppm-TLV	<i>I-</i> mg/m3	SOURCE	
i	-n-Butanol	71-36-3	10-30%	50	150	ON833/00	
ii	-Ethyl Benzene	100-41-4	5-10%	100	435	ON833/00	
iii	-Isopropanol	67-63-0	10-30%	400	980	ON833/00	
iv	-Xylene	1330-20-7	30-60%	100	435	ACGIH	
(N.AV. = not available. N.AP. = not applicable.)							

Notes:

-flammable,	irritant	(BU090001)
LD50 mg/kg:	800 , oral , Rat.	
LC50(4 hr):	8000 ppm , Rat.	
-flammable,	irritant	(ET090001)
LD50 mg/kg:	3500 , oral , Rat.	
LC50(4 hr):	4000 ppm , Rat.	
-flammable,	irritant	(IS090004)
LD50 mg/kg:	4710 , oral , Rat.	
LC50(4 hr):	17000 ppm , Rat.	
-flammable,	irritant	(XY090001)
LD50 mg/kg:	4300 , oral , Rat.	
	LD50 mg/kg: LC50(4 hr): -flammable, LD50 mg/kg: LC50(4 hr): -flammable, LD50 mg/kg: LC50(4 hr): -flammable,	-flammable, irritant LD50 mg/kg: 800 , oral , Rat. LC50(4 hr): 8000 ppm , Ratflammable, irritant LD50 mg/kg: 3500 , oral , Rat. LC50(4 hr): 4000 ppm , Ratflammable, irritant LD50 mg/kg: 4710 , oral , Rat. LC50(4 hr): 17000 ppm , Ratflammable, irritant LD50 mg/kg: 4300 , oral , Rat.

LC50(4 hr): 5000 ppm , Rat.

- IV - PHYSICAL DATA -

ODOUR AND APPEARANCE: Characteristic odor of solvents present.

VOLATILE BY VOLUME : 82.05% SPECIFIC GRAVITY : 0.871

EVAPORATION RATE : SLOWER than N'Butyl Acetate.

FLASHPOINT : 18 Degrees Centigrade (SETAFLASH CC)

LEL : 1.0 STABILITY : STABLE

HAZ. POLYMERIZATION : WILL NOT occur. VOC (gm/lt) : 686.9 (water in) VOC (gm/lt) : 686.9 (water out)

HAPs (% wt) : 40.97

- V - FIRE AND EXPLOSION HAZARD -

EXTINGUISHING METHOD

Extinguish with carbon dioxide, foam, dry chemical, or water spray.

SPECIAL FIRE-FIGHTING PROCEDURES

Self contained positive pressure breathing apparatus should be worn by fire fighting personnel. Exposure to heat builds pressure in closed containers. To prevent bursting, cool with stream of water.

UNUSUAL FIRE AND EXPLOSION HAZARDS

Flammable; material will ignite readily at ambient temperatures. Avoid use in the vicinity of sparks, static, or any source of ignition. Product is a static accumulator. Use proper grounding procedures when transferring. Vapours are heavier than air and may travel along the ground to ignition sources distant from the point of material handling and flash back. Vapours will collect in low laying areas and confined spaces.

HAZARDOUS COMBUSTION PRODUCTS

Complete and partial combustion of the paint itself or the dried film will produce carbon monoxide, carbon dioxide and various other toxic hydrocarbons.

- VI - REACTIVITY DATA -

CONDITIONS TO AVOID

To maintain stability, avoid ignition sources.

INCOMPATIBILTY - MATERIALS TO AVOID

To maintain product integrity, avoid contact with strong acids, reactive metals oxidizing materials.

HAZARDOUS DECOMPOSITION PRODUCTS

See Section 5D for Hazardous Combustion Products.

HAZARDOUS POLYMERIZATION - CONDITIONS TO AVOID None known.

- VII - TOXICOLOGICAL PROPERTIES -

ACUTE EFFECTS OF OVEREXPOSURE

SKIN CONTACT:

Irritating on contact. Contains an ingredient which may be absorbed through the skin. See ingestion for symptoms. Repeated or prolonged exposure may cause dry skin and dermatitis.

EYE CONTACT:

Liquid is irritating when splashed directly into the eyes. Severe exposure may cause eye burns resulting in permanent injury.

INHALATION:

Vapours and mist may cause nervous system depression, characterized by nausea, dizziness, loss of co-ordination, etc. Inhalation of product may irritate the respiratory system.

INGESTION:

May cause gastrointestinal irritation. Ingestion, like inhalation, may cause central nervous system depression with similar symptoms. However, small amounts aspirated into the respiratory system during ingestion or subsequent vomitting will cause severe lung irritation, (chemical pneumonitis).

CHRONIC EFFECTS OF OVEREXPOSURE

Reports have associated repeated and prolonged occupational overexposure to solvents with brain and nervous system damage. Chronic exposure has resulted in liver and kidney damage in laboratory animals. There is some evidence that long term overexposure to n-butanol may result in hearing loss. Xylene has been classified as a possible embryotoxin based on recommendations from the World Health Organization.

IRRITANCY

Product is a moderate eye and skin irritant. Product is a respiratory irritant.

SENSITIZATION

Product is essentially nonsensitizing.

- VIII - FIRST AID MEASURES -

SKIN CONTACT

Wash thoroughly with soap and water. Remove contaminated clothing.

EYE CONTACT

Flush with warm water until irritation subsides. If irritation persists, seek medical attention.

INHALATION

Remove to fresh air. Perform artificial respiration if necessary. Avoid direct mouth to mouth contact. Get medical help immediately.

INGESTION

Dilute by drinking 1 to 2 fluid ounces of water if conscious. Do not

induce vomitting. Call for prompt medical attention.

- IX - PREVENTIVE MEASURES -

SPILL OR LEAK PROCEDURES

Use nonsparking tools and explosion proof equipment. Eliminate ignition sources. Stop spill at source. Pump up excess. Soak up residue with a suitable absorbant and collect absorbate in a container for disposal. For larger spills, dike to prevent spreading, notify the proper authorities. Ventilate area. Wear adequate personal protective equipment. Restrict access to area.

WASTE DISPOSAL METHOD

Incinerate or landfill in accordance with local, provincial and federal legislation. Never dispose of by means of public waters or drainage systems.

PERSONAL PROTECTIVE EQUIPMENT

Nitrile, neoprene or rubber gloves and long sleeves should be worn to prevent skin contact. Chemical goggles should be worn to prevent eye contact. Do not wear contact lenses. A NIOSH approved organic vapour respirator with dust and mist prefilter may be required in the absence of adequate environmental controls, (when TLV exceeded). Safety shower and eye bath should be available. Approved barrier creams may be used as skin protection. Teflon or viton gloves recommended.

VENTILATION AND ENGINEERING CONTROLS

Use adequate ventilation (general or local) to maintain the ambient concentration below the occupational exposure limit.

TRANSPORTATION, STORAGE, AND HANDLING PROCEDURES

Contaminated rags may catch fire spontaneously. Store under water in a closed container before cleaning. Store in a cool, dry, well ventilated area. Remove from sources of ignition. Do not reuse empty containers. Recondition or dispose of in the proper manner. Use with adequate ventilation. Avoid skin contact. Protect your eyes.



Technical Data Sheet

Tempo Aerospace Inc. Tel: 416.746.2233 Fax: 416.746.2235

Updated October 2013 4500-P-23 (B,G,Y)

4500-P-23 (B,G,Y)

Strontium Chromate Epoxy Primer

4500-P-23 is a fluid and corrosion resistant epoxy/polyamide primer. It is specifically designed for the aerospace industry's demanding performance requirements for interior components.

SPECIFICATION

(B) DHMS.C4.01 Type 2, Grade A (G, Y) BAMS 565-001, GR.A, Cat.1, Ty. I

OUTSTANDING CHARACTERISTICS

- · Excellent Adhesion
- Excellent Hydraulic Fluid Resistance (Skydrol)
- Outstanding Solvent Resistance
- · Superb Corrosion

PHYSICAL DATA

Finish: Colour: Flat primer finish B-Green (FS 34258), G-Green (BAC 452) and

G-Green (BAC 452) a Y-Yellow (BAC 377)

Weight Solids:

52.06% ± .5% 34.76% ± .5%

Volume Solids: V.O.C.

557 g/L

Density:

9.75 lbs/USG 0.009 lbs/ft²/mL

Dry Film Weight:

1.81 g/m²/µ

RECOMMENDED SYSTEMS

- 6600, 6700, 6800 Lines DHMS C4.04 Ty. 4
- · 4600, 4700, 4800 Lines DHMS C4.04 Ty. 2
- 7600, 7700, 7800 Lines BAMS 565-002

Note: all physical and chemical resistance tests conducted after one week cure time at 20-25°C (70-75°F) on properly cleaned substrate



Surface Preparation

Chemical conversion coating per MIL-C-5541 Class 1A, or BAPS 160-020.

-OR-

Chromic acid anodize and seal per MIL-A-8625 Type I or BAPS 160-010



INSTRUCTIONS FOR USE

Components:

Two

Cure:

4500-C-23

Mix Ratio:

1:1 by volume, Base / Cure

Induction Time: 15-30 minutes

Pot Life: Reducer: 8 hours @ 25°C (75°F)

4500-S-23/23X



MIXING INSTRUCTIONS

Mix 1:1 by volume Base/Cure. We recommend using a squirrel mixer or equivalent and mix thoroughly for 5 minutes minimum. Allow 15 - 30 minutes induction time before using. Mix only sufficient material to use within a 8-hour period. Always add Cure component to Base component - **NEVER THE REVERSE**. Never mix coating or individual component from one vendor with that of another vendor.



SPRAYING VISCOSITY

14-23 seconds #2 EZ Zahn



APPLICATION METHOD

Allow for application loss and surface irregularities.

Application:

Conventional or HVLP

Reduction:

Reduce with 4500-S-23/23X



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RESISTANCE TABLE

Impact Resistance

No flaking or cracking when subjected to 50 inch pounds Impact direct and 30 inch pounds reverse.

Hardness

Pencil Hardness F minimum

Fuel Resistance

Withstands immersion of Jet A1 Fuel for 14 days at ambient Temperatures without showing any defects. After a 24 hour recovery period, the primer regains its pretest hardness.

Lubricating Oil Resistance

Withstands immersion in lubricating oil at 25°C for 14 days without showing any softening, blistering, or loss of adhesion.

Hydraulic Fluid Resistance

Withstands immersion in Skydrol hydraulic fluid without showing any defects after 30 days.

Salt Spray Resistance With a scribed film at an angle of 6°, it exhibits no blistering, lifting of the primer, or substrate corrosion after exposure to 5% salt spray following ASTM B117 on treated aluminum substrate 3000 hours.

Water Resistance

No blistering or loss of adhesion after 14 hours immersion in distilled water at ambient temperature. Regains its pretest hardness after a recovery period of 24 hours.

SUBSTRATES:

Aluminum



EQUIPMENT

Using a Binks Mach I HVLP with a 93P or 92AP air cap and a #92 Fluid tip, inlet pressure should be approximately 70-80 PSI (9 PSI at air cap) and 10-12 PSI on the pressure pot. Accuspray 19 or 12 series HVLP, use a #36 or #43 fluid tip and needle with a #6 air cap with approx 22 to 40 PSI inlet pressure (5-9 at the air cap) and 10-12 PSI on the pressure pot. For Accuspray 10 series HVLP cup gun use a #36 or #43 fluid tip and needle with a #6 air cap with approx 5-9 inlet pressure. Devilbiss JJ502 conventional spray gun uses a 765-air cap and a .0425 needle nozzle with 45-55 PSI gun pressure and 10-12 on pressure pot.



Recommended Film Build Thickness & Cover RA

Total Dry Film Recommendation 0.5 – 0.8 Mils (12.5 - 20 microns) Calculated Coverage at:

1.0 Mils:

551 ft²

25 Microns:

51.20 m²



ENVIRONMENTAL CONDITIONS

Temperature:

15 - 35°C (59 - 95°F)

Relative Humidity:

10 - 80%

Note: Substrate and air temperature must be a minimum of 3°C

(5°F) above the Dew Point



Dry Time

Dry time at 24°C ± 3°C (75°F), 50% relative humidity.

To Touch:

10 mins

Tack Free:

< 1 hour

To Recoat:

1 - 2 hours

Dry Through:

< 8 hours

Dry hard:

< 24 hours

May be forced dried: Flash off is 15 - 30 minutes at R/T

Force Dry 60 - 90°C (140 - 200°F) for

20 - 30 minutes



Stean-Ue

Cleaner:

20-4301, 4500-S-23/23X, S-10



Storage & Shipping

Flash Point:

Shelf Life:

24 months unmixed for unopened cans



SAFETY PRECAUTIONS

Please refer to the Material Safety Data Sheet (MSDS) for information regarding health, physical and environmental hazards, handling precautions and recommended first aid procedures. For industrial and automotive use only.